Listing and Amendments to the Claims

This is the current listing of the claims:

1. (Previously presented) A method for use in a receiver, the method comprising:

receiving a hierarchical modulation based signal, the hierarchical modulation based signal comprising at least a first signal layer and a second signal layer; and

simultaneously recovering from the received hierarchical modulation based signal data conveyed in the first signal layer and data conveyed in the second signal layer.

wherein the simultaneously recovering step includes the steps of:

decoding the hierarchical modulation based signal to recover data conveyed in the first signal layer;

generating metrics from the hierarchical modulation based signal as a function of a combined signal space of the hierarchical modulation based signal; and

decoding the hierarchical modulation based signal to recover data conveyed in the second signal layer as a function of the generated metrics.

2. (Original) The method of claim 1, wherein the first signal layer is an upper signal layer and the second signal layer is a lower signal layer.

3. (Previously presented) The method of claim 1, wherein the metrics are log-likelihood ratios.

4. (Original) The method of claim 1, wherein the combined signal space is a combination of a signal space of the first signal layer and a signal space of the second signal layer.

5. (Previously presented) The method of claim 1, wherein the generating step includes the step of using the hierarchical modulation based signal as an index into a look-up table of metrics.

Cancel claim 6.

Cancel claim 7.

Cancel claim 8.

9. (Previously presented) A receiver comprising:

a demodulator for demodulating a received signal to provide a hierarchical modulation based signal comprising at least two signal layers;

a first decoder operative on the hierarchical modulation based signal for decoding one of the at least two signal layers to provide data therefrom;

a second decoder for providing data from the other of the at least two signal layers, wherein the second decoder operates independently of the first decoder; and

a look-up table for storing therein metrics, wherein the metrics are determined as a function of a combined signal space of the at least two signal layers and wherein the look-up table provides the metrics to the second decoder for use therein for providing the data from the other of the at least two signal layers.

10. (Original) The receiver of claim 9, wherein the at least two signal layers include an upper signal layer and a lower signal layer.

11. (Previously presented) The receiver of claim 9, wherein the metrics are log-likelihood ratios.

Cancel claim 12.

Cancel claim 13.

Cancel claim 14.